# DEPARTMENT OF THE ARMY U.S. Army Engineer District, Rock Island Clock Tower Building - P.O. Box 2004

Rock Island, Illinois 61204-2004

CENCR-VE Memorandum No. 11-1-1

2 February 1988

# Army Programs VALUE ENGINEERING

- 1. Purpose. To establish policy, responsibility, procedures, and guidance for executing and reporting Value Engineering (VE) activities.
- 2. Applicability. This memorandum is applicable to all technical staff and field elements of the Corps of Engineers, North Central, Rock Island (CENCR).
- 3. References.
  - a. AR 5-4; OCE Sup 1 to AR 5-4.
  - b. AR 672-20; USACE Sup 1 to 672-20.
  - c. FAR 52.248-3.
  - d. EP 11-1-3.
  - e. NCR Regulation 690-1-9
- 4. Objective. To reduce the overall cost of a project or product without adversely affecting the quality or utility.
- 5. Policy. Value Engineering will be promoted in all CENCR planning, design, construction, operation, maintenance, and procurement activities.
- 6. Responsibilities.
- a. Value Engineering Officer (VEO). The VEO will administer the Value Engineering program by establishing procedures for its accomplishment; will select, with assistance of the participating divisions, VE study teams; coordinate in-house VE studies; expedite the evaluation of each Value Engineering Change Proposal (VECP); monitor and report on response to the program; and provide Value Engineering training throughout the District.

This Memorandum supersedes Memorandum 11-1-1, dated 02 Oct 84

- b. Engineering Division (ED). ED will identify projects which appear to have VE potential and notify the Value Engineering Officer (VEO). ED will coordinate with the VEO in the selection of VE study teams, and, with direction from the VEO, conduct VE studies when these projects have passed the concept stage; expedite evaluation of contractor VECPs; provide the study team manpower to assist other divisions with in-house VE studies; and report selected projects and results of VE studies to the VEO.
- c. Construction Division (CD). CD will encourage contractors to participate in the VE program and assist them in their efforts. CD will identify and report to the VEO project which appear to have VE potential. In coordination with the VEO, CD will conduct VE studies when warranted; provide study team manpower to assist other divisions with in-house VE studies; expedite the processing of all VECPs; develop each contractor's understanding of the principles and application of VE; offer assistance in establishing and maintaining VE procedures; notify the VEO of all preconstruction meetings; and identify those contracts which warrant contact by the VEO due to the high potential for VE savings.
- d. Operations Division (OD). OD will identify projects which appear to have VE potential and notify the VEO. OD will assist the VEO in the selection of VE study teams; and, in coordination with the VEO, conduct VE studies; report schedules of planned VE studies and study results to the VEO; encourage contractors to participate in the VE program, assisting them in their efforts; and provide study team manpower to assist other divisions with in-house VE studies.
- e. Planning Division (PD). PD will identify projects which appear to have VE potential and notify the VEO. PD will assist the VEO in the selection of VE Study Teams; coordinate with the VEO to conduct VE studies when these projects have passed the concept stage; provide study team manpower to assist other divisions with in-house VE studies; and report selected projects and results of VE studies to the VEO.
- f. Contracts Division (CT). CT will encourage contractors and suppliers to participate in the Value Engineering program and assist them in their efforts; expedite the processing of VECPs; and provide study team manpower to assist other divisions with in-house VE studies.
- g. Value Engineering Selection and Review Board. The value Engineering Selection and Review Board will provide general guidance for the program, review VE proposals for in-house study, and make recommendations to the District Commander for solutions, funding and manpower deficiencies in problem areas. From projects submitted by Engineering, Operations,

Construction, and Planning Divisions, and other sources, the Board will select projects, determine disciplines required, establish a Value Engineering Study Team (VEST) for each project to be studied, and plan and approve the VE study schedule. The Board, which will meet at least once each quarter, will consist of eight members- the Deputy District Engineer, the Value Engineering Officer, one each from Engineering, Operations, Construction and Planning Divisions, and one each from Program Management and the Office of the Comptroller. The VEO, with Board members from CD, ED, OD, and PD-will establish and maintain by appointment orders, a list of employees who will serve on the Value Engineering Study Team(VEST) member list. Board members are responsible for naming VEST member list replacements. This list will be made available to the Value Engineering Selection and Review Board at the quarterly meetings. In selecting employees to serve on study teams, the Value Engineering Selection and Review Board will use, but not be limited to, the names from the VEST member list.

- 7. Areas of application. The application of Value Engineering will fall into two categories.
  - a. In-house Value Engineering.
- (1) Value Engineering will be applied and stressed in all designs done in-house and in the review of designs accomplished by contracted Architect-Engineers. Any possible area of application of Value Engineering will be exploited and reported to the VEO.
- (2) The Engineering, Construction, Operations, Planning and Contract Divisions will select projects which warrant further study. In-house Value Engineering studies will be undertaken to reduce these project costs.
- (3) In addition to the recommended selections, VE proposals offered by individuals in the District organizations will also be carefully considered by the divisions and the VEO for possible in-house study (see Appendix A).
- b. Contractor Value Engineering. This category encompasses cost reduction proposals submitted by contractors in response to the Value Engineering Incentive Clause included in project specifications (see Appendix B). They are:
- (1) Area/Project Engineers receiving cost reduction proposals will review the proposals to verify that all information required by the Value Engineering Incentive Clause has been furnished. The proposals will then be forwarded, through CD, to the VEO.

Memorandum 11-1-1 2 Feb 88

- (2) The VEO will ensure that all VECPs are processed as expeditiously as possible. Evaluation of VECPs will be coordinated by the VEO with technical element(s) of the District Office.
- 8. Publicity. PAO will promote interest and added participation in the Value Engineering Program and publicize approved proposals that result in significant savings. The VEO will maintain contact with the Public Affairs Office and keep that office aware of progress made in the program.
- 9. Awards. Value Engineering recognition will be coordinated to the fullest practicable extent with the Incentive Awards Program. When it is warranted, recognition for such achievements will be by means of a Special Achievement Award (Special Act or Service Award). A complete justification, with pertinent supporting documentation, will be originated by the VEO, and forwarded through the appropriate channels to the Personnel Office on DA Form 1256, Incentive Award Nomination and Approval. If the action was accomplished as the result of an official assignment to conduct a specific study, the action must have exceeded the level of accomplishment normally expected of individuals given such assignments. Any cash award for accomplishments would be determined under the provisions of Appendix C of this Memorandum.
- 10. Reports. Value Engineering Proposals (VEP) and VECPs will be reported to the Corps of Engineers, North Central Division (CENCD) and to HQUSACE Corps of Engineers, Engineering Construction (Engineering Value) (CEE-EV) on ENG Form 4607-R (Value Management Improvement/Action).

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LARRY E. JONES
Executive Assistant

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#### 2 February 1988

# APPENDIX A VALUE ENGINEERING PROPOSALS SUBMITTED BY INDIVIDUALS

- 1. Introduction. Procedures for submittal of Value Engineering proposals by individuals to the Value Engineering Officer (VEO) are set forth below to ensure effective implementation of this segment of the Value Engineering program.
- 2. Participation. All CENCR employees are encouraged to participate in the Value Engineering program in order to obtain equal or better products at a lower cost to the Government.
- 3. Procedures.
  - a. Submittals shall be made directly to the VEO and shall include:
    - (1) Original design, product, material, etc.
    - (2) Estimate of cost of original.
    - (3) Proposed design, product, material, etc.
    - (4) Estimate of cost for revision.
    - (5) Estimated savings to the Government.
  - b. The VEO shall:
    - (1) Assign a file title to the proposal.
    - (2) Notify the applicant of any action to be taken.
- (3) Route the proposal to the appropriate technical staff Value Engineering Selection and Review Board member for evaluation as to merit, applicability, and verification.
  - (4) Notify the affected division that a proposal has been submitted and is being evaluated.
  - c. After the evaluation process the VEO shall:
- (1) Take any necessary action to ensure implementation of the proposal and notify the applicant of those actions; or

## Memorandum 11-1-1 2 Feb 88

- (2) Notify the applicant by Disposition Form (DA Form 2496) that the proposal has been rejected, and state the reasons for the rejection.
- d. If the proposal has been rejected by higher authority and the originator still believes it to have merit the proposal may be resubmitted to the VEO. The originator should incorporate all additional justification/rationale in the second submission. The statute of limitations on propriety rights for each VEP resubmitted is one year. Notification of final action rests with the VEO and follows the procedure outlined in paragraph 3c, above.

#### APPENDIX B

Administration, U.S. Department of Transportation, Washington, D.C. 20590, Phone: 202/426-4610.

### 64. VALUE ENGINEERING - CONSTRUCTION (DEVIATION) (1984 APR) FAR 52.248-3

(The following clause is applicable if this contract is in excess of \$100,000.)

- (a) GENERAL. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECPs) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's in accordance with paragraph (f) below.
- (b) DEFINITIONS. "Collateral costs", as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings", as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs", as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP as well as those costs the Contractor incursto make the contractual changes required by Government acceptance of a VECP.

"Government costs", as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings", as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

- (1) Requires a change to this, the instant contract, to implement; and
- (2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

- (i) In deliverable end item quantities only; or
- (ii) To the contract type only.
- (c) VECP PREPARATION. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed changes is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:
- (1) A description of the differences between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.
- (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
- (3) A separate, detailed cost estimate for (i) the affected portions of the existing contract requirement and (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.
- (4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.
- 5) A prediction of any effects the proposed change would have on collateral costs to the agency.
- (6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction , noting any effect on the contract completion time or delivery schedule.
- (7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.
- (d) SUBMISSION. The Contractor shall submit VECPs to the Resident Engineer at the worksite, with a copy to the Contracting Officer.
  - (e) GOVERNMENT ACTION.
- (1) The Contracting Officer shall notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer shall notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECPs expeditiously; however, it shall not be liable for any delay in action upon a VECP.

- (2) If the VECP is not accepted, the Contracting Officer shall notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.
- (3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The Contracting Officer's decision to accept or reject all or part of any VECP shall be final and not subject to the Dispute clause or otherwise subject to litigation under the Contract Disputes Act of 1978 (41 U.S.C. 601-613).

#### (f) SHARING.

- (1) RATES. The Contractor's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by (i) 55 percent for fixed-price contracts or (ii) 25 percent for cost-reimbursement contracts.
- (2) PAYMENT. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--
  - (i) Accept the VECP;
  - (ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and
  - (iii) Provide the Contractor's share of savings by adding the amount calculated under subparagraph (1) above to the contract price or fee.
- (g) SUBCONTRACTS. The Contractor shall include an appropriate value engineering clause in any subcontract of \$50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments, provided that these payments shall not reduce the Government's share of the savings resulting from the VECP.

Memorandum 11-1-1 2 Feb 88

(h) DATA. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on affected parts:

"These data, furnished under the Value Engineering-Construction clause of contract \_\_\_\_\_\_\_, shall not be disclosed outside the Government or duplicated, used or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations."

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulations.)